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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/053,511

01/16/2002

Roy D. Kornbluh

SRIIP035/US-4237-2

1563

22434

7590

04/07/2004

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EXAMINER

BUDD, MARK OSBORNE

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

hd

<b>Office Action Summary</b>	<b>Application No.</b> 10/053,511	<b>Applicant(s)</b> KORNBLUH ET AL.	
	<b>Examiner</b> Mark Budd	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-96 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendments to the specification and claims constitute new matter not found in the original disclosure. No explicit language can be found in the original disclosure to support "said deflection resulting --- at least about 10% ----". Applicant states the amendatory material finds basis in "US application 09/619848 which was incorporated by reference in the present application". However, the examiner has not been able to find any such reference in applicant's original disclosure.

Assuming, arguendo, that the examiner has overlooked a valid incorporation, the added limitation cannot be seen as critical in any way, shape or form since it is not even implicitly noted in the original disclosure.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-88 and 93-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pottenger, Hubbard or Lee.

The references teach the basic transducer system using an electroded piezoelectric polymer operating in a bending mode to control stiffness of and/or provide driving and damping of a device. They do not mention a minimum increase or decrease in surface area during operation. Also, they do not explicitly teach some of the system details such as drive voltage levels buffer capacitors, plural active areas on a single electro-active element and particular resistor values. However, it has long been held that optimization of a known device for a particular specification is within the skill expected of the routineer. Likewise duplication of parts and/or making parts integral or separable are manipulations with the skill expected of the routineer. Thus to provide plural active areas on a single election element (rather than plural separate elements) and providing optimum circuit values would have been obvious to one of ordinary skill in the art.

Claims 80-92 are rejected under 35 USC 103(a) as being unpatentable over Pottenger, Hubbard or Lee in view of Lazarus or Spangler.

Pottenger, Lee and Hubbard teach using one electro-active polymer transducer in a drive/damp servo system to control a desired device. They do not explicitly apply their systems to footwear. However, Lazarus and Spangler both teach it is well known to use an electro-active transducer to control parameters of footwear. IT would hav been obvious to use the specific polymer material of Lee, Hubbard or Pottage in Lazarus or Spangler since selection from among known suitable materials has long

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been held to be within the skill expected to the routineer. Conversely, it would have been obvious to use the electro-active polymer drive, damping system to any particular device known to benefit from a drive/damp application; including footwear (as taught by Spangler or Lazarus).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Budd/ds

03/24/03

MARK U. BUDD  
PRIMARY EXAMINER  
ART UNIT 2834

Art Unit: 2834

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-96 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendments to the specification and claims constitute new matter not found in the original disclosure. No explicit language can be found in the original disclosure to support "said deflection resulting --- at .least about 10% ----". Applicant states the amendatory material finds basis in "US application 09/619848 which was incorporated by reference in the present application". However, the examiner has not been able to find any such reference in applicant's original disclosure.

Assuming, arguendo, that the examiner has overlooked a valid incorporation, the added limitation cannot be seen as critical in any way, shape or form since it is not even implicitly noted in the original disclosure.

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-88 and 93-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pottenger, Hubbard or Lee.

The references teach the basic transducer system using an electroded piezoelectric polymer operating in a bending mode to control stiffness of and/or provide driving and damping of a device. They do not mention a minimum increase or decrease in surface area during operation. Also, they do not explicitly teach some of the system details such as drive voltage levels buffer capacitors, plural active areas on a single electro-active element and particular resistor values. However, it has long been held that optimization of a known device for a particular specification is within the skill expected of the routineer. Likewise duplication of parts and/or making parts integral or separable are manipulations with the skill expected of the routineer. Thus to provide plural active areas on a single electro-active element (rather than plural separate elements) and providing optimum circuit values would have been obvious to one of ordinary skill in the art.

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been held to be within the skill expected to the routineer. Conversely, it would have been obvious to use the electro-active polymer drive, damping system to any particular device known to benefit from a drive/damp application; including footwear (as taught by Spangler or Lazarus).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Budd/ds

03/24/03

MAKIN BUDD  
PRIMARY EXAMINER  
ART UNIT 210